

* NOTICES *

JPO and NCIP are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

Bibliography

- (19) [Publication country] Japan Patent Office (JP)
- (12) [Kind of official gazette] Open patent official report (A)
- (11) [Publication No.] JP,2004-93519,A (P2004-93519A)
- (43) [Date of Publication] March 25, Heisei 16 (2004. 3.25)
- (54) [Title of the Invention] A test tube and a distributive-pouring system
- (51) [The 7th edition of International Patent Classification]

G01N 35/02
G01N 35/10

[FI]

G01N 35/02 C
G01N 35/06 D

[Request for Examination] Un-asking.

[The number of claims] 10

[Mode of Application] OL

[Number of Pages] 10

(21) [Application number] Application for patent 2002-258455 (P2002-258455)

(22) [Filing date] September 4, Heisei 14 (2002. 9.4)

(71) [Applicant]

[Identification Number] 390037006

[Name] SRL, Inc.

[Address] 2-41-19, Akebono-cho, Tachikawa-shi, Tokyo

(74) [Attorney]

[Identification Number] 100112427

[Patent Attorney]

[Name] Fujimoto Yoshihiro

(74) [Attorney]

[Identification Number] 100108419

[Patent Attorney]

[Name] Oishi Haruhito

(74) [Attorney]

[Identification Number] 100109221

[Patent Attorney]

[Name] Fukude Mitsuhiro

(72) [Inventor(s)]

[Name] Tamura **

[Address] 51, Komiyamachi, Hachioji-shi, Tokyo Inside of SRL Hachioji Laboratory

[Theme code (reference)]

2G058

[F term (reference)]

2G058 CA02 CB15 EA01 EB05 ED03 GC01 GC02 GC05 GC06 GC09

[Translation done.]

* NOTICES *

JPO and NCIP are not responsible for any
damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

Epitome

(57) [Abstract]

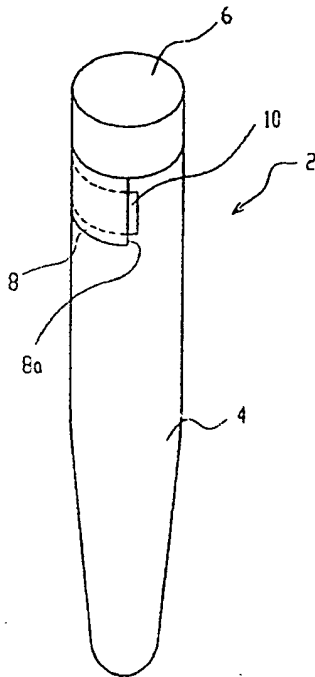
[Technical problem] Offer the test tube which can give the identification information about the specimen poured distributively easily.

[Means for Solution] The test tube 2 is equipped with the hold section 4 of the shape of a cylinder to which an end has opening in the closing other end, and the covering device 6 which closes opening. Moreover, the spigot section 8 which can insert RF-ID tag 10 is formed in the location in alignment with

the margin inferior of the upper part 6 of the hold section 4, i.e., a covering device. This spigot section 8 has insertion opening 8a which can be inserted along with the periphery section of the hold section 8 for RF-ID tag 10. The specimen information on the specimen held in the test tube 2 (a reception day, Specimen ID) etc. is memorized by this RF-ID tag 10.

[Selection drawing] drawing 1

[Translation done.]



[Translation done.]

* NOTICES *

JPO and NCIP are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1]

An end is the test tube which equips the closing other end with the tubed hold section which has opening, and the covering device which closes said opening,

The test tube characterized by having the spigot section which can insert the 1st RF-ID tag in the periphery section of said hold section.

[Claim 2]

Said spigot section is a test tube according to claim 1 characterized by being prepared in the up periphery section of said hold section.

[Claim 3]

Said spigot section is a test tube according to claim 1 or 2 characterized by having insertion opening which can be inserted along with the periphery section of said hold section for said 1st RF-ID tag.

[Claim 4]

Said 1st RF-ID tag is a test tube given in any 1 term of claim 1 characterized by being constituted by the RF-ID tag of a microwave method - claim 3.

[Claim 5]

A test tube given in any 1 term of claim 1 characterized by inserting said 1st RF-ID tag in said spigot section - claim 4.

[Claim 6]

The specimen container for former specimens constituted with a test tube according to claim 5,

The specimen container for distributive-pouring specimens constituted with a test tube according to claim 5,

Distributive-pouring equipment which attracts a part of former specimen by the distributive-pouring head inserted in said hold section of the specimen container for said former specimens, and carries out the regurgitation to said specimen container for distributive-pouring specimens

In a preparation ***** system,

The distributive-pouring system characterized by having the 1st antenna for transmitting and receiving information to said 1st RF-ID tag on said distributive-pouring head.

[Claim 7]

A receiving means to receive the specimen information memorized by said 1st RF-ID tag with which the specimen container for said former specimens is equipped through said 1st antenna when said distributive-pouring head is inserted into the specimen container for said former specimens,

A transmitting means to transmit specimen information to said 1st RF-ID tag with which said specimen container for distributive-pouring specimens is equipped through said 1st antenna when said distributive-pouring head is inserted into said specimen container for distributive-pouring specimens

Furthermore, the distributive-pouring system according to claim 6 characterized by having.

[Claim 8]

It has further the specimen rack which holds said two or more specimen containers for distributive-pouring specimens,

This specimen rack is a distributive-pouring system according to claim 6 or 7 characterized by having a specimen directions information storage means to memorize the specimen directions information about said specimen container for distributive-pouring specimens held in this specimen rack.

[Claim 9]

Said specimen directions information storage means is a distributive-pouring system given in any 1 term of claim 6 characterized by having further the 2nd antenna for being constituted by the 2nd RF-ID tag, and transmitting and receiving information to this 2nd RF-ID tag - claim 8.

[Claim 10]

Said 2nd RF-ID tag is a distributive-pouring system according to claim 9 characterized by being constituted by the RF-ID tag of an electromagnetic induction type.

[Translation done.]

* NOTICES *

JPO and NCIP are not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention]

This invention relates to the distributive-pouring system using the test tube which holds specimens, such as blood, plasma, and a blood serum, and this test tube.

[0002]

[Description of the Prior Art]

Conventionally, the specimen container which holds specimens, such as blood, plasma, and a blood serum, is conveyed by the inspection institute which conducts inspection of a specimen etc., after reception processing is performed in an inspection institute, is held in a specimen rack and kept. That is,

attachment of the label which indicated the specimen information which contains a specimen number, a reception day, etc. in the specimen container which held first reception processing, for example, the specimen conveyed by the inspection institute, is performed. Next, inspection of a specimen etc. is conducted, while specimen directions information is created by what the specimen information on the specimen which the specimen in which reception processing was performed is held in a specimen rack, for example, is kept by the location number and rack of the hold section of a rack etc. is associated for (string attachment **) and storage of a specimen is performed based on this specimen directions information (for example, patent reference 1 reference).

[0003]

[Patent reference 1]

JP,8-285855,A

[0004]

[Problem(s) to be Solved by the Invention]

When inspection of a specimen is directed, based on specimen directions information, a required specimen is sampled from a specimen rack, distributive pouring is performed and inspection is conducted using the specimen poured distributively. In this case, attachment etc. needed to be carried out to the specimen container with which the specimen which had the label with which the specimen information about the specimen poured distributively was indicated poured distributively is held, and the great effort was needed for it.

[0005]

The technical problem of this invention is offering the distributive-pouring system using the test tube and this test tube which can give the identification information about the specimen poured distributively easily.

[0006]

[Means for Solving the Problem]

An end is the test tube which equips the closing other end with the tubed hold section which has opening, and the covering device which closes said opening, and a test tube according to claim 1 is characterized by having the spigot section which can insert the 1st RF-ID tag in the periphery section of said hold section.

[0007]

Since it has the spigot section which can insert the 1st RF-ID tag which memorizes specimen information according to this test tube according to claim 1, when the activity of a test tube is completed, the 1st RF-ID tag can be removed from the spigot section, and can be reused.

[0008]

Moreover, a test tube according to claim 2 is characterized by preparing said spigot section in the up periphery section of said hold section. According to this test tube according to claim 2, since the spigot section is prepared in the up periphery section of the hold section, when it equips with the 1st RF-ID tag,

the condition of the specimen held in the hold section of a test tube can be checked easily.

[0009]

Moreover, a test tube according to claim 3 is characterized by said spigot section having insertion opening which can be inserted along with the periphery section of said hold section for said 1st RF-ID tag. since the spigot section has insertion opening which can be inserted along with the periphery section of the hold section for the 1st RF-ID tag according to this test tube according to claim 3 -- equipment -- or the spigot section can be easily equipped with the 1st RF-ID tag by handicraft, or it can remove.

[0010]

Moreover, a test tube according to claim 4 is characterized by said 1st RF-ID tag being constituted by the RF-ID tag of a microwave method.

[0011]

Moreover, a test tube according to claim 5 is characterized by inserting said 1st RF-ID tag in said spigot section. According to this test tube according to claim 5, the specimen information on a specimen and this specimen held in the test tube is manageable as one.

[0012]

Moreover, the specimen container for former specimens which a distributive-pouring system according to claim 6 consists of with a test tube according to claim 5, A part of former specimen is attracted by the distributive-pouring head inserted in said hold section of the specimen container for distributive-pouring specimens constituted with a test tube according to claim 5, and the specimen container for said former specimens. In a distributive-pouring system equipped with the distributive-pouring equipment which carries out the regurgitation to said specimen container for distributive-pouring specimens, it is characterized by having the 1st antenna for transmitting and receiving information to said 1st RF-ID tag on said distributive-pouring head.

[0013]

Moreover, when a distributive-pouring system according to claim 7 inserts said distributive-pouring head into the specimen container for said former specimens A receiving means to receive the specimen information memorized by said 1st RF-ID tag with which the specimen container for said former specimens is equipped through said 1st antenna, When said distributive-pouring head is inserted into said specimen container for distributive-pouring specimens, it is characterized by having further a transmitting means to transmit specimen information to said 1st RF-ID tag with which said specimen container for distributive-pouring specimens is equipped through said 1st antenna.

[0014]

In case according to this claim 6 and the distributive-pouring system according to claim 7 a distributive-pouring head is inserted into the specimen container for former specimens and a part of former specimen is attracted The specimen information memorized by the 1st RF-ID tag with which the specimen container for former specimens is equipped through the 1st antenna is received. In case the

regurgitation of the former specimen which inserted the distributive-pouring head into the specimen container for distributive-pouring specimens, and attracted it is carried out, specimen information is transmitted to the 1st RF-ID tag with which the specimen container for distributive-pouring specimens is equipped through the 1st antenna. Therefore, the specimen information on the specimen poured distributively by performing distributive-pouring processing and coincidence can be certainly written in the 1st RF-ID tag.

[0015]

Moreover, a distributive-pouring system according to claim 8 is further equipped with the specimen rack which holds said two or more specimen containers for distributive-pouring specimens, and this specimen rack is characterized by having a specimen directions information storage means to memorize the specimen directions information about said specimen container for distributive-pouring specimens held in this specimen rack. This distributive-pouring system according to claim 8 can manage the specimen directions information on the specimen held in the specimen container for distributive-pouring specimens held in the specimen rack per rack as a specimen and one.

[0016]

Moreover, a distributive-pouring system according to claim 9 is characterized by having further the 2nd antenna for said specimen directions information storage means being constituted by the 2nd RF-ID tag, and transmitting and receiving information to the 2nd RF-ID tag. Moreover, a distributive-pouring system according to claim 10 is characterized by said 2nd RF-ID tag being constituted by the RF-ID tag of an electromagnetic induction type.

[0017]

According to this claim 9 and the distributive-pouring system according to claim 10, the 2nd one RF-ID tag can be made to memorize the specimen directions information on the specimen which storage capacity is large since the 2nd RF-ID tag is an electromagnetic induction type, and is held in each hold section of a specimen rack.

[0018]

[Embodiment of the Invention]

Hereafter, with reference to a drawing, the test tube concerning the gestalt of implementation of this invention is explained. Drawing 1 is the external view of the test tube concerning the gestalt of implementation of this invention. This test tube 2 is equipped with the hold section 4 of the shape of a cylinder to which an end has opening in the closing other end, and the covering device 6 which closes opening. Moreover, the spigot section 8 which can insert RF-ID tag (the 1st RF-ID tag) 10 is formed in the location in alignment with the margo inferior of the upper part 6 of the hold section 4, i.e., a covering device. This spigot section 8 has insertion opening 8a which can be inserted along with the periphery section of the hold section 8 for RF-ID tag 10. The specimen information on the specimen held in the test tube 2 (a reception day, Specimen ID) etc. is memorized by this RF-ID tag 10.

[0019]

Here, an RF-ID tag is an automatic-recognition tag which can perform informational reading and informational rewriting which are memorized by non-contact. The optical method using light, such as an electromagnetic coupling type using an electromagnetic-induction operation, an electrostatic coupling type using the induction operation by static electricity, an electromagnetic induction type using electromagnetic induction, a microwave method using the electric wave of a microwave band, and infrared radiation, etc. exists in this RF-ID tag.

[0020]

The RF-ID tag of a microwave method is used for RF-ID tag 10. The RF-ID tag of this microwave method transmits and receives information using the microwave of a 2.45GHz band. Since the RF-ID tag of this microwave method is using the very high frequency of 2.45GHz, it has the property of being hard to be influenced of the communication link by the outpatient department noise (noise).

[0021]

Furthermore, an RF-ID tag can be used as various configurations, for example, a label form, a coin form, a card type, etc. according to an activity gestalt. Among these, the label form is used for RF-ID tag 10.

[0022]

Drawing 2 is drawing for explaining the condition of inserting RF-ID tag 10 in the spigot section 8 of a test tube 2. As shown in drawing 2 (b), the end of label-like RF-ID tag 10 is inserted in insertion opening 8a of the spigot section 8 of the test tube 2 shown in drawing 2 (a), and RF-ID tag 10 is stuffed into it in the spigot section 8. The condition of having equipped drawing 2 (c) with RF-ID tag 10 at the spigot section 8 of a test tube 2 is shown.

[0023]

Drawing 3 is drawing for explaining the condition of removing RF-ID tag 10 from the spigot section 8 of a test tube 2. As the end of RF-ID tag 10 with which the spigot section 8 shown in drawing 3 (a) was equipped is pulled out as shown in drawing 3 (b), and it is shown in drawing 3 (c), RF-ID tag 10 is removed from the spigot section 8 of a test tube 2.

[0024]

Since it has the spigot section 8 which can insert RF-ID tag 10 which memorizes specimen information according to the test tube 2 concerning the gestalt of this operation, when the activity of a test tube 2 is completed, RF-ID tag 10 can be removed from the spigot section 8, and can be reused. Therefore, reduction of the cost of the test tube with an RF-ID tag used for inspection etc. can be aimed at.

[0025]

Moreover, according to the test tube 2 concerning the gestalt of this operation, since the spigot section 8 is formed in the up periphery section of the hold section 4, when it equips with RF-ID tag 10, the condition of the specimen held in the hold section 4 of a test tube 2 can be checked easily.

[0026]

since [moreover,] the spigot section 8 has insertion opening 8a which can be inserted along with the

periphery section of the hold section 4 for RF-ID tag 10 according to the test tube 2 concerning the gestalt of this operation -- equipment -- or the spigot section 8 can be easily equipped with RF-ID tag 10 by handicraft, or it can remove.

[0027]

Moreover, when RF-ID tag 10 is inserted in the spigot section 8 of the test tube 2 concerning the gestalt of this operation, the specimen information on a specimen and this specimen held in the test tube 2 can be managed as one, and can be dealt with.

[0028]

Next, the distributive-pouring system using the test tube concerning the gestalt of implementation of this invention is explained. Drawing 4 is the outline block diagram of the distributive-pouring system concerning the gestalt of operation. This distributive-pouring system pours distributively the specimen held in the specimen container 22 for former specimens by distributive-pouring equipment 20 to the specimen container 26 for distributive-pouring specimens held in the specimen rack 24.

[0029]

It has perpendicularly movable distributive-pouring head 20 with horizontal and distributive-pouring equipment 20 a, and antenna (1st antenna) 20b for transmitting and receiving information between RF-ID tag (1st RF-ID tag) 26a with which RF-ID tag (1st RF-ID tag) 22a and the specimen container 26 for distributive-pouring specimens with which the specimen container 22 for former specimens is equipped are equipped is prepared in distributive-pouring head 20a.

[0030]

Antenna 20b has the ring-like configuration and is prepared near the point of distributive-pouring head 20a here. In addition, when distributive-pouring head 20a is inserted in the specimen container 22 for former specimens, or the specimen container 26 for distributive-pouring specimens, the configuration (for example, ring-like configuration of having predetermined width of face) for adjusting a communication range so that informational transmission and reception may be attained between the RF-ID tags prepared in the specimen container 22 for former specimens or the specimen container 26 for distributive-pouring specimens is given to antenna 20b. Moreover, antenna (2nd antenna) 20c for transmitting and receiving information between RF-ID tag (2nd RF-ID tag) 24a with which the specimen rack 24 is equipped, i.e., a specimen directions information storage means, is prepared in distributive-pouring equipment 20.

[0031]

The specimen container 22 for former specimens is constituted by the test tube shown in drawing 1, and the specimen information on the specimen held in the specimen container 22 for former specimens (a reception day, Specimen ID) is memorized by RF-ID tag 22a. Moreover, the specimen container 26 for distributive-pouring specimens is constituted by the test tube shown in drawing 1, and the specimen information on the specimen held in the specimen container 26 for distributive-pouring specimens is memorized by RF-ID tag 26a.

[0032] .

The specimen rack 24 is equipped with RF-ID tag 24a. The RF-ID tag of an electromagnetic induction type is used for this RF-ID tag24a. The RF-ID tag of this electromagnetic induction type mainly uses the electromagnetic wave of the merit and medium wave length of 250kHz or less or a 13.56MHz band. Information is transmitted and received using the induced voltage by the induction magnetic flux of two coils, using a coil as an antenna of the RF-ID tag of an electromagnetic induction type. Memorizable amount of information exists in the RF-ID tag of this electromagnetic induction type from what is several bytes to hundreds of bytes of thing. A label form or a card type is used for this RF-ID tag24a. The specimen directions information about the distributive-pouring specimen held in the specimen rack 24 is memorized by this RF-ID tag24a.

[0033]

Drawing 5 is the block block diagram of distributive-pouring equipment 20. This distributive-pouring equipment 20 is equipped with the control section 30 which controls the whole distributive-pouring equipment. The pump 34 for performing attraction of the distributive-pouring head actuator 32 which performs actuation control of distributive-pouring head 20a, and a specimen, and the regurgitation is connected to this control section 30.

[0034]

Moreover, antenna 20c is connected through the 2nd tag reading write-in equipment 38 which antenna 20b is connected to the control section 30 through the 1st tag reading write-in equipment 36 which performs informational reading writing between RF-ID tag22a or RF-ID tag 26a, and performs informational reading writing between RF-ID tag 24a. Furthermore, the storage section 40 which memorizes specimen information etc. is connected.

[0035]

Next, distributive-pouring processing of the specimen which starts the gestalt of operation with reference to the flow chart of drawing 6 is explained. First, as shown in drawing 7 (a), drive distributive-pouring head 20a by the distributive-pouring head actuator 32, it is made to move onto the specimen container 22 for former specimens based on the control signal from a control section 30, and distributive-pouring head 20a is further inserted in the hold circles of the specimen container 22 for former specimens (step S10).

[0036]

If distributive-pouring head 20a is inserted in the hold circles of the specimen container 22 for former specimens, the specimen information transmitted by antenna 20b from RF-ID tag22a with which the specimen container 22 for former specimens is equipped will be received, and specimen information will be read with 1st tag reading write-in equipment 36 (step S11). And this read specimen information is memorized in the storage section 40 (step S12). Next, based on the control signal from a control section 30, only an initial complement attracts the former specimen held in the specimen container 22 for former specimens with the pump 34.

[0037].

Next, as shown in drawing 7 (b), drive distributive-pouring head 20a by the distributive-pouring head actuator 32, it is made to move based on the control signal from a control section 30 onto the predetermined specimen container 26 for distributive-pouring specimens held in the specimen rack 24, and distributive-pouring head 20a is further inserted in the hold circles of the specimen container 26 for distributive-pouring specimens (step S14).

[0038]

If distributive-pouring head 20a is inserted in the hold circles of the specimen container 26 for distributive-pouring specimens, through 1st tag reading write-in equipment 36, by antenna 20b, the specimen information on the former specimen memorized by the storage section 40 will be transmitted to RF-ID tag 26a with which the specimen container 26 for distributive-pouring specimens is equipped, and specimen information will be written in to RF-ID tag 26a (step S15). Next, based on the control signal from a control section 30, the regurgitation of the specimen which controlled the pump 34 and drew in in the specimen container 26 for distributive-pouring specimens is carried out (step S16).

[0039]

Next, the specimen (beam with string) directions information which connected the positional information on the specimen rack 24 of the specimen container 26 for distributive-pouring specimens which poured distributively, and the specimen information written in RF-ID tag 26a of this specimen container 26 for distributive-pouring specimens is created, and it memorizes in the storage section 40 (step S17). And it judges whether distributive pouring was completed about all specimens with the need of pouring distributively (step S18), and when the specimen which should still be poured distributively remains, it returns to step S10 and distributive-pouring processing of the following specimen is performed (step S10 - step S17).

[0040]

When it is judged about all the specimens that have the need of pouring distributively, in step S18 that distributive-pouring processing was completed, the specimen directions information on the rack number of the specimen rack 24 with which the specimen container 26 for distributive-pouring specimens is held, and the specimen held in this specimen rack 24 is read from the storage section 40, and it writes in RF-ID tag 24a with which the specimen rack 24 is equipped. That is, specimen directions information is transmitted to antenna 20c to RF-ID tag 24a through 2nd tag reading write-in equipment 38, and specimen directions information is written in to RF-ID tag 24a (step S19).

[0041]

In case according to the distributive-pouring system concerning the gestalt of this operation distributive-pouring head 20a is inserted in 22 in a specimen container for former specimens and a part of former specimen is attracted The specimen information memorized by RF-ID tag 22a with which the specimen container for former specimens is equipped through antenna 20b is received. In case the regurgitation of the former specimen which inserted distributive-pouring head 20a in 26 in a specimen container for

distributive-pouring specimens, and attracted it is carried out, specimen information is transmitted to RF-ID tag 26a with which the specimen container 26 for distributive-pouring specimens is equipped through antenna 20b. Therefore, the specimen information on the specimen poured distributively by performing distributive-pouring processing and coincidence can be certainly written in RF-ID tag 26a.

[0042]

Moreover, since the specimen rack 24 is equipped with RF-ID tag 24a which memorizes the specimen directions information about the specimen container 26 for distributive-pouring specimens held in this specimen rack 24, the specimen information on the specimen held in the specimen container for distributive-pouring specimens held in the specimen rack is manageable per rack as a specimen and one. Furthermore, one RF-ID tag can be made to memorize the specimen directions information on the specimen which storage capacity is large since RF-ID tag 24a is an electromagnetic induction type, and is held in each hold section of the specimen rack 24.

[0043]

In addition, although RF-ID tag 26a with which RF-ID tag 22a and the specimen container 26 for distributive-pouring specimens with which the specimen container for former specimens is equipped are equipped is made to memorize a reception day and Specimen ID as specimen information, you may make it make an inspection subject name, a specimen name, a name of patient, sex, age, a hospital name, a clinical recording number, etc. memorize further in the gestalt of above-mentioned operation.

[0044]

[Effect of the Invention]

Since it has the spigot section which can insert the 1st RF-ID tag which memorizes specimen information according to the test tube of this invention, when the activity of a test tube is completed, the 1st RF-ID tag can be removed from the spigot section, and can be reused. Moreover, since the spigot section is prepared in the up periphery section of the hold section, when it equips with the 1st RF-ID tag, the condition of the specimen held in the hold section of a test tube can be checked easily. since [furthermore,] the spigot section has insertion opening which can be inserted along with the periphery section of the hold section for the 1st RF-ID tag -- equipment -- or the spigot section can be easily equipped with the 1st RF-ID tag by handicraft, or it can remove. Moreover, the specimen information on a specimen and this specimen held in the test tube is manageable as one.

[0045]

Moreover, in case according to the distributive-pouring system of this invention a distributive-pouring head is inserted into the specimen container for former specimens and a part of former specimen is attracted The specimen information memorized by the 1st RF-ID tag with which the specimen container for former specimens is equipped through the 1st antenna is received. In case the regurgitation of the former specimen which inserted the distributive-pouring head into the specimen container for distributive-pouring specimens, and attracted it is carried out, specimen information is transmitted to the 1st RF-ID tag with which the specimen container for distributive-pouring specimens is equipped through

the 1st antenna. Therefore, the specimen information on the specimen poured distributively by performing distributive-pouring processing and coincidence can be easily written in the 1st RF-ID tag. Moreover, the specimen directions information on the specimen held in the specimen container for distributive-pouring specimens held in the specimen rack is manageable per rack as a specimen and one.

[Brief Description of the Drawings]

[Drawing 1] It is the external view of the test tube concerning the gestalt of implementation of this invention.

[Drawing 2] It is drawing showing the condition of equipping with an RF-ID tag in the test tube concerning the gestalt of implementation of this invention.

[Drawing 3] It is drawing showing the condition of removing an RF-ID tag from the test tube concerning the gestalt of implementation of this invention.

[Drawing 4] It is drawing showing the outline configuration of the distributive-pouring system concerning the gestalt of implementation of this invention.

[Drawing 5] It is the block block diagram of the distributive-pouring system concerning the gestalt of implementation of this invention.

[Drawing 6] It is a flow chart for explaining the distributive-pouring processing by the distributive-pouring system concerning the gestalt of implementation of this invention.

[Drawing 7] It is drawing for explaining the distributive-pouring processing by the distributive-pouring system concerning the gestalt of implementation of this invention.

[Description of Notations]

2 [-- The spigot section, 8a / -- Insertion opening, 10 / -- RF-ID tag,] -- A test tube, 4 -- The hold section, 6 -- A covering device, 8 20 -- Distributive-pouring equipment, 20a -- A distributive-pouring head, 20b, 20c -- Antenna, 22 [-- The specimen container for distributive-pouring specimens, 30 / -- A control section, 32 / -- A distributive-pouring head actuator, 34 / -- A pump, 36 / -- 1st tag reading write-in equipment, 38 / -- 2nd tag reading write-in equipment, 40 / -- Storage section.] -- The specimen container for former specimens, 24 -- A specimen rack, 24a -- An RF-ID tag, 26

[Translation done.]

* NOTICES *

JPO and NCIP are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.

2. **** shows the word which can not be translated.

3. In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the external view of the test tube concerning the gestalt of implementation of this invention.

[Drawing 2] It is drawing showing the condition of equipping with an RF-ID tag in the test tube concerning the gestalt of implementation of this invention.

[Drawing 3] It is drawing showing the condition of removing an RF-ID tag from the test tube concerning the gestalt of implementation of this invention.

[Drawing 4] It is drawing showing the outline configuration of the distributive-pouring system concerning the gestalt of implementation of this invention.

[Drawing 5] It is the block block diagram of the distributive-pouring system concerning the gestalt of implementation of this invention.

[Drawing 6] It is a flow chart for explaining the distributive-pouring processing by the distributive-pouring system concerning the gestalt of implementation of this invention.

[Drawing 7] It is drawing for explaining the distributive-pouring processing by the distributive-pouring system concerning the gestalt of implementation of this invention.

[Description of Notations]

2 [-- The spigot section, 8a / -- Insertion opening, 10 / -- RF-ID tag,] -- A test tube, 4 -- The hold section, 6 -- A covering device, 8 20 -- Distributive-pouring equipment, 20a -- A distributive-pouring head, 20b, 20c -- Antenna, 22 [-- The specimen container for distributive-pouring specimens, 30 / -- A control section, 32 / -- A distributive-pouring head actuator, 34 / -- A pump, 36 / -- 1st tag reading write-in equipment, 38 / -- 2nd tag reading write-in equipment, 40 / -- Storage section.] -- The specimen container for former specimens, 24 -- A specimen rack, 24a -- An RF-ID tag, 26

[Translation done.]

* NOTICES *

JPO and NCIP are not responsible for any damages caused by the use of this translation.

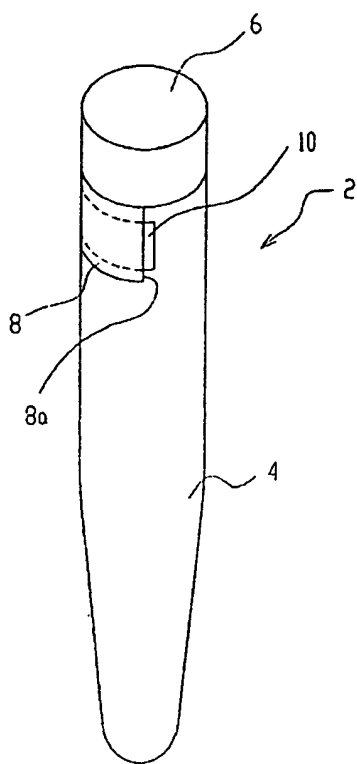
1. This document has been translated by computer. So the translation may not reflect the original precisely.

2. **** shows the word which can not be translated.

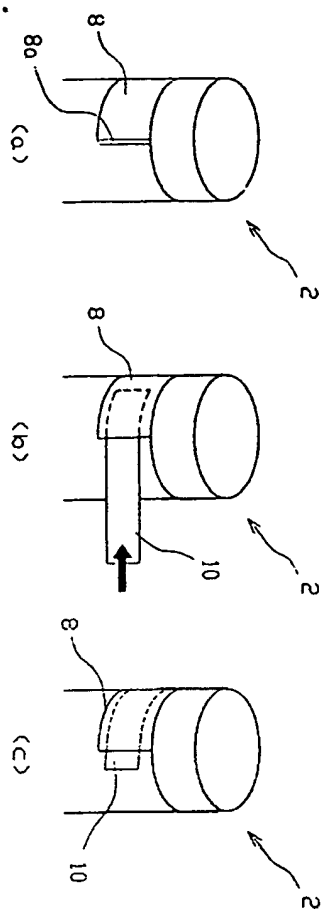
3. In the drawings, any words are not translated.

DRAWINGS

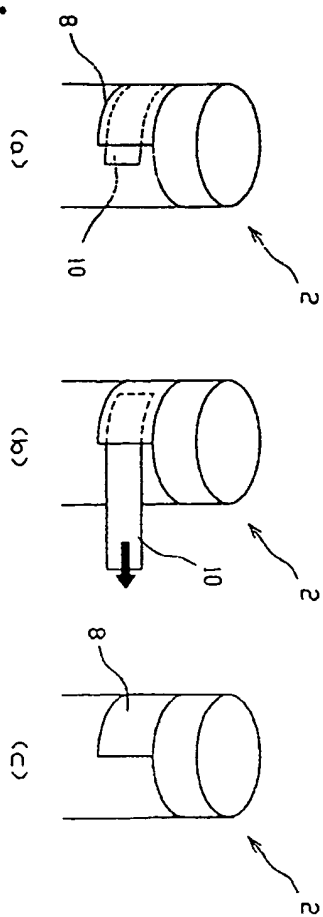
[Drawing 1]



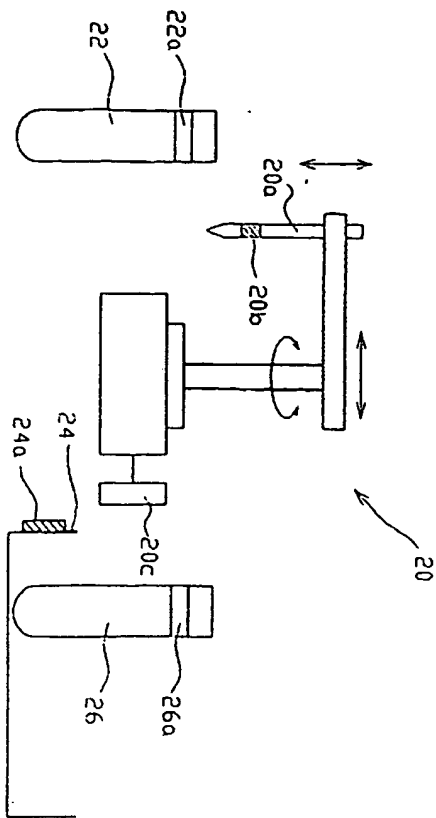
[Drawing 2]



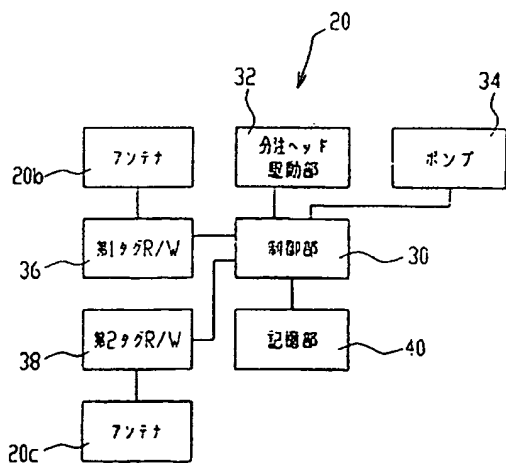
[Drawing 3]



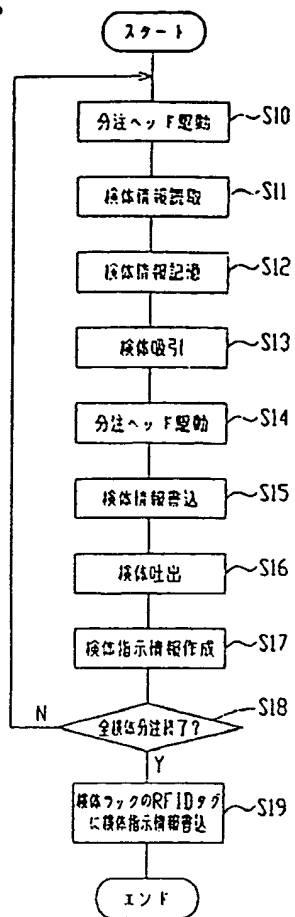
[Drawing 4]



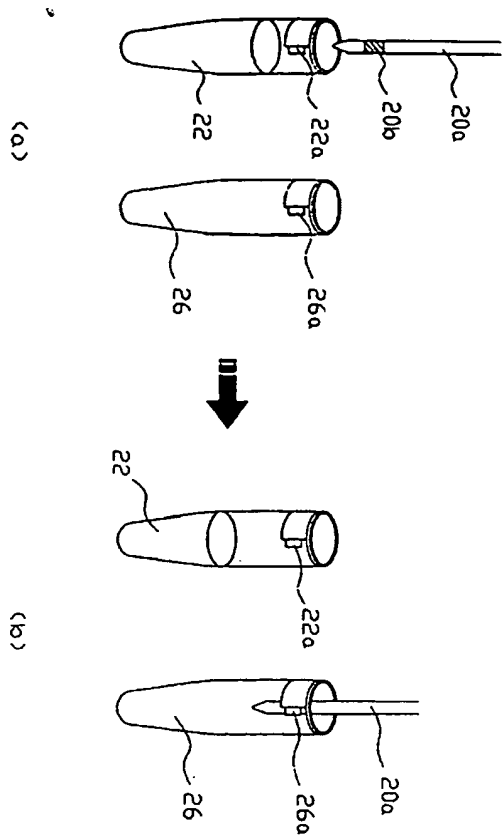
[Drawing 5]



[Drawing 6]



[Drawing 7]



[Translation done.]

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☒ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☒ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.